



# MEDICATION USED IN THE OFFICE BASED SETTING: NALTREXONE

Ryan Tewell, PharmD

# Disclosures

- None

# Treatment

- Available treatments for OUD consist of pharmacotherapy and behavioral therapies.
- The **gold standard** is medication assisted treatment (**MAT**), wherein pharmacotherapy is combined with some form of **counseling** or behavioral therapy.

# Beneficiaries



**PATIENTS**



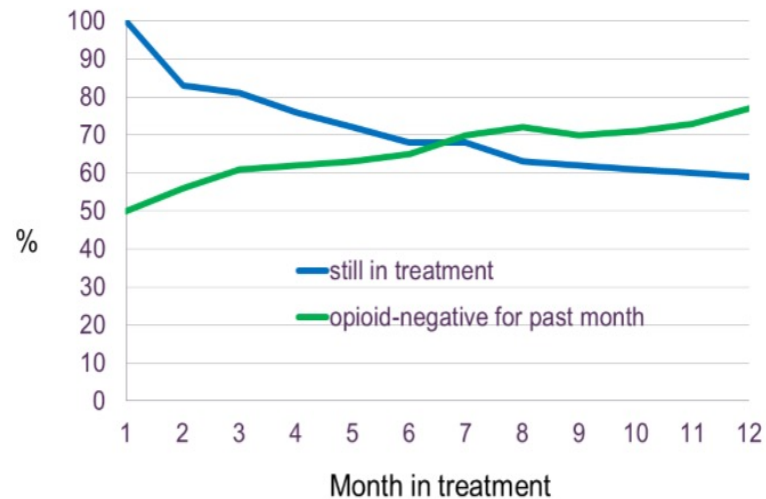
**PROVIDERS**



**COMMUNITY**

## Treatment Retention and Decreased Illicit Opioid Use on MAT

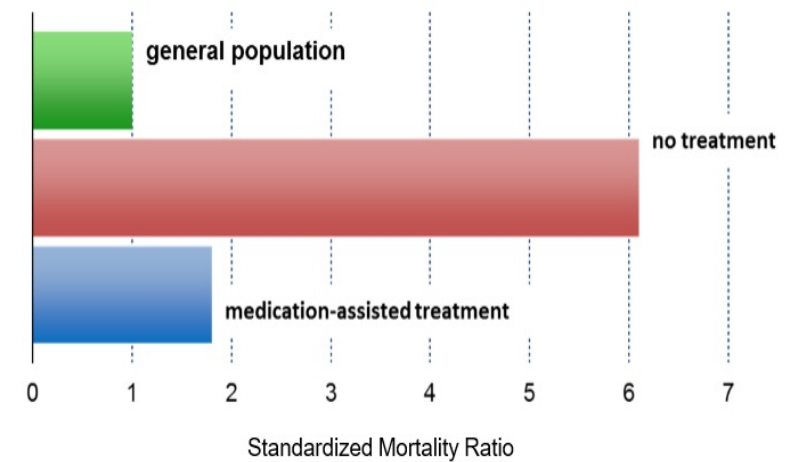
- Buprenorphine promotes retention, and those who remain in treatment become more likely over time to abstain from other opioids



Kakko et al., 2003  
Soeffing et al., 2009

## Benefits of MAT: Decreased Mortality

### Death rates:



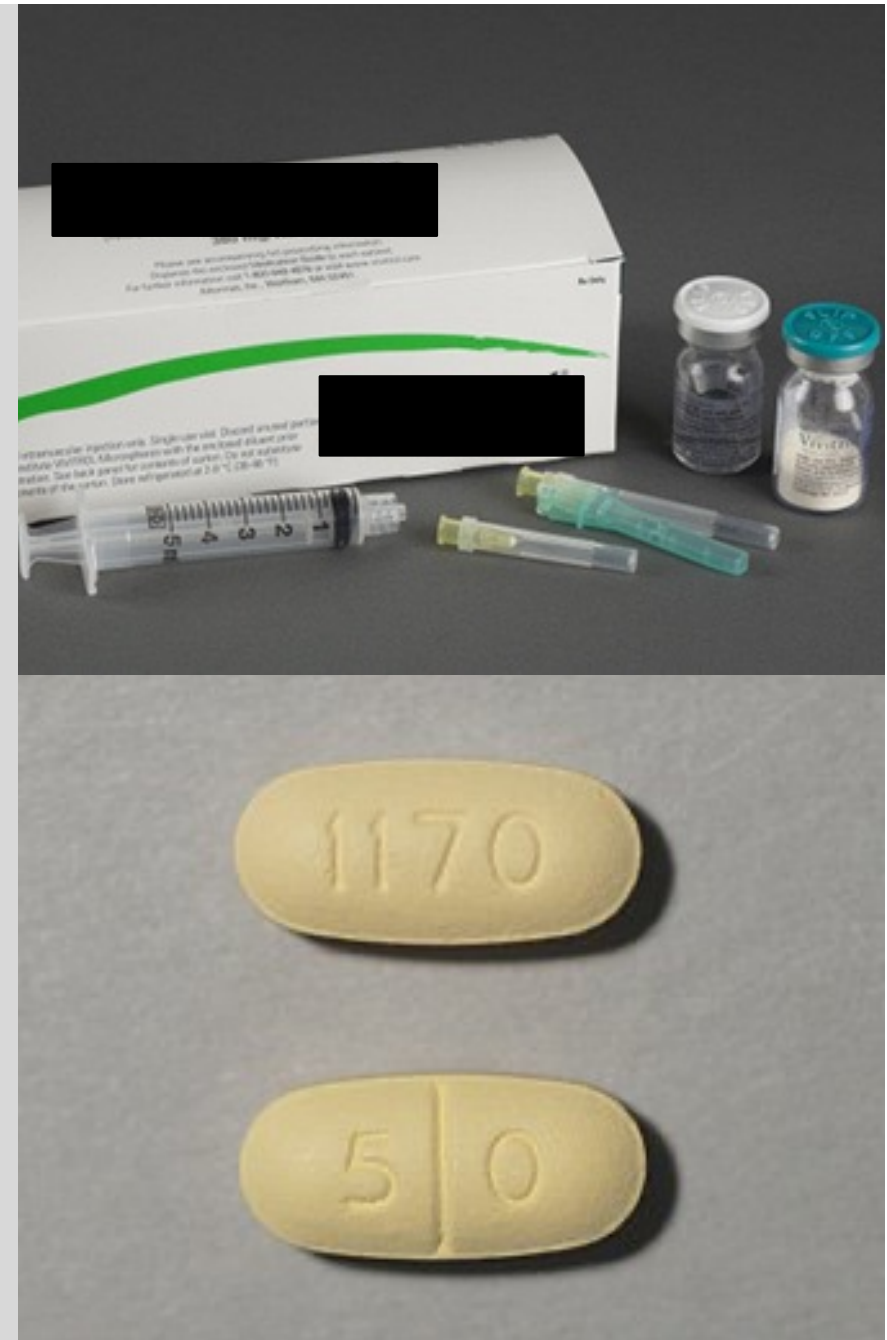
Dupouy et al., 2017  
Evans et al., 2015  
Sordo et al., 2017



**NALTREXONE**

# Formulations

- Intramuscular Suspension
  - Give directly after reconstitution
  - Gluteal injection only!
- Tablet PO



# Mechanism of Action

- Competitive opioid antagonist
- Antagonist action eliminates abuse-potential
- Reduced cravings for opioids

## How OUD Medications Work in the Brain



Methadone



Full agonist:  
generates effect

Buprenorphine



Partial agonist:  
generates limited effect

Naltrexone



Antagonist:  
blocks effect



# Naltrexone IM vs Buprenorphine

## 12 weeks

- n ~50 each arm
- No significant difference in negative UDS
- Trend toward fewer days of heroin use with naltrexone

## 24 weeks

- n ~285 each arm
- ITT protocol: Bup significantly superior
- PP protocol: no significant difference
- Significantly fewer patients completed induction with naltrexone

# Cochrane Review

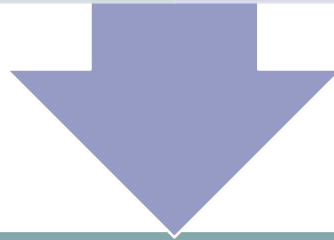
- PO naltrexone no better than placebo for relapse
- Did significantly reduce return to prison (2 studies)
- Insufficient evidence to use PO for OUD at this time



Complete abstinence from opioids

5-7 days for  
short-acting

7-10 days for  
long-acting



Confirm with urine drug test or  
naloxone challenge

Induction

# Dosing

	Opioid Use Disorder	Alcohol Use Disorder
Initiation	<ul style="list-style-type: none"><li>▪ 25 mg daily</li><li>▪ Increase to 50 mg daily if no withdrawal</li></ul>	<ul style="list-style-type: none"><li>▪ 50 mg daily</li></ul>
Maintenance	<ul style="list-style-type: none"><li>▪ 50 mg daily weekdays and 100 mg Saturday</li><li>▪ 100 mg every other day (EtOH may require daily)</li><li>▪ 150 mg every three days</li><li>▪ 380 mg IM every 4 weeks (3 weeks for some)</li></ul>	



	<b>PO Naltrexone</b>	<b>IM Naltrexone</b>
<b>Time to Peak</b>	1 hour	2 hours
<b>Duration</b>	50 mg = 24 hours 100 mg = 48 hours 150 mg = 72 hours	4 weeks

# KINETICS



Metabolized by liver

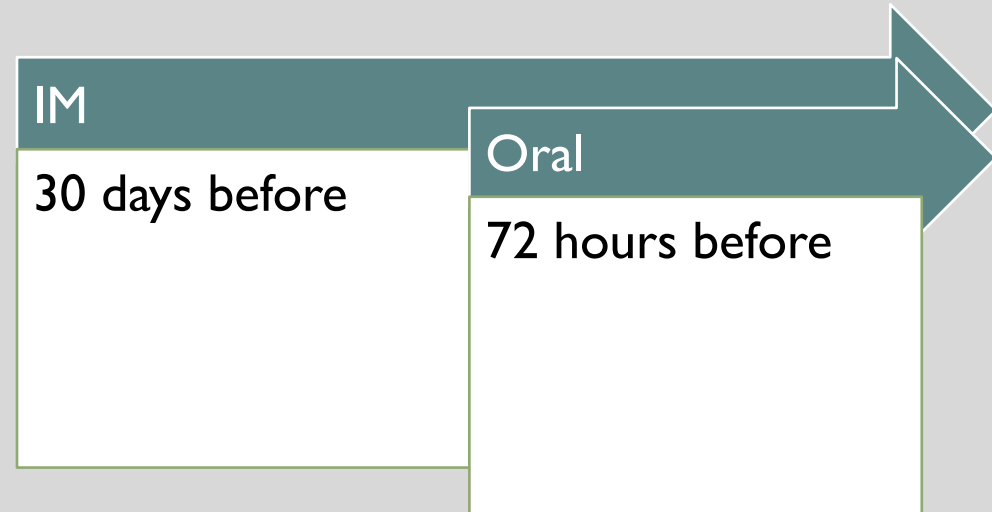


Eliminated in urine

**Kinetics**

# Surgery

- Hold naltrexone prior to surgery that will likely require opioids
- Opioids would not work



# Adverse Reactions



Nausea, Vomiting, Diarrhea



Headache



Injection site reaction



Hepatic injury



Insomnia/fatigue



Joint pain



Opioid withdrawal



Overdose with Relapse



# Advantages of Naltrexone

---

Curbs craving for alcohol

---

Monthly dosing

---

Do not need DATA waiver

---

No risk of diversion

---

Patients who prefer not to use agonist

# Disadvantages of Naltrexone

---

Intolerable adverse effects

---

Poor adherence

---

Difficult induction

# Best Patients for Naltrexone

Concomitant  
alcohol use

No access to  
agonists

Want to  
avoid agonists

Failed other  
therapies

Difficulty  
with  
adherence

High risk of  
dependence

# Comparison

	Naltrexone	Buprenorphine	Methadone
MOA – Opioid receptors	Antagonist	Partial agonist	Agonist
Dosage forms	PO, IM	PO, Sublingual, Buccal, Implant, Injection	PO, Dissolving tablet, IV*
Precautions	Withdrawal, lowered opioid tolerance, hepatotoxicity	Overdose (low risk)	Overdose, QTc prolongation
			*Only for NPO



**Medication**

**Parenting Classes**

**Substance Use Counseling**

**Family Counseling**

**Counseling for Co-Occurring Diagnoses**

**Job Training/Skills  
Development**

# References

- Dr. Joyce Troxler. ECHO buprenorphine lecture.
- PCSS MAT Waiver Training 8 Hour Course slide deck
- Weimer MB. Medication for opioid use disorder. PCSS MAT Training.
- Lee JD, Nunes EV, Novo P, et al. Comparative effectiveness of extended-release naltrexone versus buprenorphine-naloxone for opioid relapse prevention (O:BOT): a multicenter, open-label randomized controlled trial. *Lancet*. 2018;391(10118):309-18.
- Tanum L, Solli KK, Latif Z, et al. Effectiveness of injectable extended-release naltrexone vs daily buprenorphine-naloxone for opioid dependence. *JAMA Psychiatry*. 2017;74(12):1197-1205.
- Lexicomp.